

VIRGINIA WILDLIFE

DECEMBER 2004

TWO DOLLARS





Director's Column

William L. Woodfin, Jr.

As the year comes to a close, I am excited to tell you about a new beginning for the Department of Game and Inland Fisheries. We currently have our first class of 17 game warden recruits attending the Department's new state certified Law Enforcement Training Academy. After an intensive 32-week training program, these new recruits will be the first graduates, in the spring of 2005, under this new program.

Previously, our game wardens attended the Central Virginia Criminal Justice Academy in Lynchburg. Because the position of game warden is like no other law enforcement job in the Commonwealth, we decided to undertake the development of our own academy. Under the leadership of Lt. Scott Naff, Academy Director; Sgt Milt Robinson, Assistant Academy Director; Diane Davis, Administrative Assistant and 50 certified Department instructors, as well as local, state and federal instructors, the program includes more than 200 courses and 12-16 weeks of field training under the direct supervision of a field training officer. After a year of extensive development, the Department's Law Enforcement Basic Training program



meets or exceeds all mandates set forth by the Virginia Department of Criminal Justice Services.

With our own academy we can focus on the varied abilities specific to the job duties of a game warden. Game wardens not only must skillfully operate motor vehicles while patrolling, but they also must be adept at operating everything from personal watercrafts, kayaks, jet-driven inflatables and ocean-going vessels, as well as mountain bikes and ATVs. They must be proficient with firearms, land and water survival skills, crime scene investigations, drug and OUI enforcement, search and rescue, and intense physical training.

A Virginia game warden is vested to enforce all the laws of the commonwealth and uphold the statute and regulations that affect hunting, fishing, trapping, and boating. The scope of the Virginia game warden's work is constantly changing. The Virginia Department of Game and Inland Fisheries Academy will help game wardens adapt to these new changes and continue to provide quality service to the citizens of the Commonwealth.

I would like to remind you that when you meet a game warden, remember that he or she is a member of your community, protecting your wildlife and natural resources and helping you to have a safe and enjoyable experience in the outdoors.



Front row, left to right: Lt. Scott Naff, Academy Director; Diane Davis, Administrative Assistant; Sgt. Milt Robinson, Assistant Academy Director; and the first class of the VDGIF Law Enforcement Training Academy.

Mission Statement

To manage Virginia's wildlife and inland fish to maintain optimum populations of all species to serve the needs of the Commonwealth; to provide opportunity for all to enjoy wildlife, inland fish, boating and related outdoor recreation; to promote safety for persons and property in connection with boating, hunting and fishing.

Dedicated to the Conservation of Virginia's Wildlife and Natural Resources

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Mark R. Warner, Governor

HUNTING & FISHING LICENSE FEE S

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About the cover:

For over 40 years Rachel Nuttall Anderson has enjoyed the outdoors through hunting. She will be the first to tell you that the desire to hunt and the joy of hunting comes from deep within, and it is a gift that has al-

lowed her to see nature at its best.

Photo ©Dwight Dyke.



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Reading, Writing, Arithmetic and *Fishing!*

by Marc N. McGlade



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The Orange County High School 4-H and BASS Anglers, a progressive fishing organization, is serving as a model for the rest of the state.

It appears that there are two types of people in this world: energizers and de-energizers. The former category is reserved for individuals like the bubbly checkout clerk at a family-owned grocery store or the witty waiter with his Southern charm and spot-on manners. They are the type of people who make you want to shop their store or dine in their restaurant time and time again. Or, maybe it's a

motivational speaker, you know, the kind that makes you stand up and cheer and leaves you feeling jacked up when you walk out of the lecture hall—chomping at the bit to tell everyone of your renewed vigor after witnessing such a spectacle. Maybe you had a coach who displayed characteristics of an energizer, along the likes of Joe Paterno, Joe Torre, Bear Bryant or Vince Lombardi.

Then comes the latter. De-energizers are the kind of people who come into a business meeting and, without even saying a word, suck all the life out of anything human in attendance. Something's always wrong; someone's always in his or her way; the glass is perpetually half-empty; ad infinitum.

Fortunately for the students of Orange County High School, they

have an energizing force in Becky Gore. There's a movement in Virginia that just might serve as a national model for energizers. Gore and the Orange County High School 4-H and BASS Anglers—referred to as OCHS Anglers—are making a big splash across much of this rural area of central Virginia as a school club that teaches much more than how to catch a fish. This club provides a conduit for the students to compete in fishing tournaments, build and sink fish structures, learn to become stewards for the outdoors and learn and develop a love for educating others about conservation and preservation of Virginia's wonderful natural resources.

Gore teaches earth science, astronomy and oceanography at OCHS. She has been teaching at the high school level for 33 years—19



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Above: The Orange County High School anglers club averages approximately 15 anglers at any given tournament. Right: During club fishing tournaments students weigh and measure each fish. Once the tournament is over the fish are released, to be caught another day. Opposite page, l to r: Danny Grayson, past president OCHS Anglers Club and Becky Gore present Justin Carr with the 2002-2003 Angler of the Year Award.

years at Madison County High School prior to her Orange County stint. Gore, a native of Madison County, is a graduate of the University of Virginia and is a 4-H All Star (4-H All Stars is an honor/service organization; membership in 4-H All Stars is the highest recognition a 4-H'er can achieve).

"My father and brother were the ones who really got me into fishing and the outdoors," she says. "My mother was responsible for getting me into the 4-H program."



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Just The Facts, Ma'am

Orange County High School started this exciting fishing club in 2000. The OCHS Anglers has 45 members (boys and girls) and is the most active club in the school; 30 students belong to the Virginia Chapter of Junior Bassmasters (part of the Bass Anglers Sportsman Society Youth Federation).

The OCHS Anglers was the first youth federation club in Virginia, and today is the largest in the state. Their tournaments average 15 or so anglers—competing either against one another, against another school club or facing another BASS Youth Federation.

The OCHS Anglers are primarily a group of 14- to 18-year-old students (although they won't turn away the younger brothers and sisters of students—they sometimes have very young kids participating at their derbies and tournaments)



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Students are not only shown how to catch fish, they are taught about aquatics and fisheries biology. Below: The OCHS angler's work as a team to build fish habitats that enhance fisheries across Virginia. This AquaCrib was placed in Lake Anna.



©Dwight Dyke

who love to fish competitively and for fun. Their interests include tournament fishing, fishing ethics, sportsmanship, fishing techniques and conservation.

Gore says the club holds monthly meetings, regular tournaments, workshops, classes on boating safety and Global Positioning System, an awards banquet and more. The students compete in local, state, regional, national and international tournaments sanctioned by BASS. The group assists other organizations with children's fishing derbies and works on natural resource conservation projects, like building fish habitats. Their fishing trips across the Old Dominion are mostly in fresh water, but they also venture to briny water locales, too.

Although the favored species for this club as a whole is the large-mouth bass, the club is in no way strictly a bass organization. They fish for anything that is slippery and swims. Awards and ribbons are given to anglers who catch the most weight or the largest fish of a given species.

At the season's culmination, the OCHS Anglers host an awards dinner, honoring the top anglers and recognizing everyone's efforts—every student member brings something of value to this club.

"The Orange County High School Anglers club has offered a phenomenal opportunity for more of our students to be involved in school activities," says Gena Keller, the principal of Orange County High School. "The connection that these students make with each other and with Ms. Gore has positive, life-long implications. What a wonderful way to increase the likelihood that more students will enjoy their high school years by being connected. Go fish!"

Keller says Becky Gore came to her with an idea about the club. The principal was all ears. Gore men-



©Marc McGlade



tioned how much she missed fishing with her late husband.

"I asked her why she didn't continue fishing—what was missing?" Keller says. "It seemed her passion was bigger than fishing and connecting with the kids seemed a logical choice. I've been an advisor to her, and we work very well together. I have a wonderful staff and Becky is very passionate about her job. We wanted to encourage healthy competition with the students. We defined the possible barriers and acted in a proactive way to make the program happen.

"I don't want any kid leaving this high school without a connection. This club is a definite connection for them and fishing is simply the avenue. Not everybody is a football star, gymnast or math wiz. This gives them another opportunity to choose."

Preparing For Life

It's easy to point fingers at one another when things in life go awry. That's one of the refreshing aspects of the OCHS Anglers—that is, their

lack of self-promotion. They're on the other end of the spectrum, freely giving credit to others and taking very little for themselves. It appears at first blush (and second, third and fourth) that their teamwork and spirit is unmatched and unswerving.

There is more to this program than simply tossing a spinnerbait at a shoreline blowdown, waiting for a fat pig of a largemouth bass to inhale the lure. This program teaches youngsters about trust, responsibility, conservation and more—things that go a long way in the development of an outdoors advocate that the Commonwealth needs to cultivate. These are tomorrow's leaders, and greasing the skids for them as voices to enhance outdoor experiences is monumental.

They Said It...

Danny Grayson—an 18-year-old charter club member and former club president who recently graduated from OCHS and now attends William & Mary—started fishing when he started walking.

"My dad was the one who got me started and he still fishes with me," the Barbourville angler says. "During my freshman year at Orange County High School I saw a sign for the anglers club at the annual club fair. All the clubs at the school have a recruiting day. The anglers club looked interesting so I signed up since I could relate so much to the fishing aspect."

Grayson says the OCHS Anglers fish against each other and other clubs, but it could be more interesting if they could compete against more schools.

Will Seymour, a recent graduate and charter club member, says, "We're still working to get this club to the varsity sport level. That's the ultimate goal." Seymour, who now attends Shenandoah University majoring in environmental studies, says his time spent with Becky Gore and his fellow students was something that will serve as a lifelong lesson to him.

Both young men are quick to credit Gore with the brainchild she envisioned. This is a rock-solid club with interested boys and girls. Sey-

Looking To Start A Fishing Club In Your School?

- For more information about how you can make a difference to youngsters in your community, contact Becky Gore by calling (540) 948-4375 or (540) 223-0193, or via e-mail at iteach72@yahoo.com.
- To contact Gena Keller at OCHS, call (540) 661-4300, ext. 1520.
- To learn more about the Virginia BASS Federation, visit the Web at www.vabass.com.
- To peruse the Web on Virginia 4-H (Head, Heart, Hands, Health) information, visit www.ext.vt.edu/resources/4h.
- The Virginia Department of Game and Inland Fisheries can help kick-start your club. Visit them online at www.dgif.virginia.gov, or call (804) 367-1000.



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mour and Grayson say the students can truly relate to Gore and that she is the glue that keeps the club together.

The parental support in this club is exceptional. Bert Seymour and Greg Grayson have done their share to support Becky Gore and the entire club. Their direct involvement with their sons and other members is helping shape the future of this club. "There's nothing in the world like getting kids out fishing," the elder Seymour says. "This club is dependent upon adult participation to help provide additional boats, guidance and general support. It's very important that we're here for Becky and the kids."

"The more schools that get involved, the better this program will be," explains Danny Grayson's dad, Greg. "More funding will help, of course. We conduct fund-raisers to help offset our costs. Currently, our

cash flow comes strictly from donors and fund-raisers."

What You Can Do In Your Community

When Becky Gore first conceived this program, she knew she would need help from others—a lot of help. Two people, among many others, stepped up to the plate and offered their services: Farmer and Betty Meadows. Gore approached the Meadows in 1999 to ask permission to fish their 19-acre, private lake in Locust Grove. Farmer and Betty are former teachers, mostly at the high school level in Northern Virginia; therefore, Gore had kindred spirits on her side. As former teachers, they understand the importance of being there for the kids.

"I loved every minute of teaching, and growing up fishing made it easy to open our place to the OCHS An-



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Becky Gore, along with two enthusiastic students, show why starting a fishing club in your school is a great way to get kids hooked on learning.

glers," says Farmer Meadows, who was born and raised in Crab Orchard, W.Va.

"Becky knows we love teenagers and we welcome them here to fish and learn," says Betty Meadows, Farmer's wife of more than 50 years.

The gracious couple open their lake to the club about four times per year for tournaments.

"The Meadows have even donated money to help the cause of the OCHS Anglers," Gore says. "Not only did they give us access to fish their wonderful lake, but financial support as well, which allowed us to purchase boats and electric motors for the kids. They have been a huge help to us, and we wouldn't be where we are today in this club without them."

While Gore downplays her role in this successful effort, she indeed was the recipient of the 2004 Orange County Youth Advocate Award. This award is given to those who go above and beyond the call of duty for kids in Orange County.

"This award is a joint effort with Bert Seymour and Greg Grayson," says Gore. "These two dads go beyond what most parents do today, and they've made all the difference in the world to these kids and the program."

Safety is of utmost concern to Gore. She stresses the need for ethics, conservation and safety.

"All anglers must wear a personal flotation device the entire day dur-

ing a tournament or they'll be disqualified," she says.

"I think if other schools are interested in starting a program, they should contact their local 4-H office as a starter. Additionally, it would be a good idea for any interested principal to contact Gena Keller at OCHS, so she can elaborate on how we got started. And, of course, I'd be happy to talk with anyone who's interested in starting a program. Parents must get involved to make a program successful like ours. Getting anything off the ground takes an effort from many different avenues, but it's worth the effort, to say the least."

Gore believes the opportunity exists for every school in Virginia to have a fishing club, particularly with the available lakes, rivers and ponds across the state. With so many kids spending more time in front of a television set or playing video games these days, programs like the OCHS Anglers become even more important. Gore is doing her part to get the future of the outdoors to step outside and smell the roses—or in this case, to catch some fish.

You have a decision to make. You can become an energizer or a de-energizer. If you choose to be an ener-

gizer and become a positive influence in someone's life, you too, like Becky Gore, might be able to change a community and help kids reach their goals, aspirations and lead them toward unlimited potential and future endeavors filled with positives. The glass is half-full. It's your choice. □

Marc McClade is a writer and photographer from Midlothian. Marc is a regular contributor to Virginia Wildlife, Game & Fish, FLW Outdoors, North Carolina Sportsman, The Sportsman's Magazine and other national and regional publications.



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From Ringtails to Cottontails

*Are you "hunt'n"
or are you just hunting?*

story by Rachel Nuttall Anderson
photos by Dwight Dyke

For me growing up on a dairy farm in the 1950s was a time when there was only one car in the driveway and one telephone in the house. Not everyone had a television and some still had an outhouse down the hill. Teenagers didn't have many choices. They weren't really choices; they were a way of life and milking, gardening and "hunt'n" were high on my list. Milking and gardening fed the family and paid the bills. Since I milked and gardened with Daddy, it was only natural that I would want to be with him and the dogs that we both cared for and loved. Hunt'n was



Rachel Anderson contributes a lot of what she learned about hunting to her father, Ed Nuttall, pictured above. This photograph was taken of her dad and their dog Buck in 1949, after an all-night coon hunt.

recreation and could be done at night when all the chores had been laid aside.

Coon hunt'n went beyond the dogs and woods. It was a bond between the hunters and their dogs. When the weather was not fittin' for man or his dogs and the edge of dark began to show, a few cars and

trucks would find their way down the lane. I say cars, because when there was only one vehicle to a family, it had to be a car and the dogs either rode on the back seat or in the trunk. The men would gather around the kitchen table, sitting for hours, talking dogs and telling coon hunt'n tales. There was a deep respect between these men, each other and their dogs. Those were special times for the little, redhead girl who sat over on the wood box listening, learning and dreaming. Dreaming of the evening when two lanterns would be filled, globes polished and placed on the steps of the back porch—something that the girl and the dogs watched for from the time Daddy came up the hill from the barn until he reached for the lantern. The girl with her eyes as big as two, big, blue saucers and the dogs stretching their chains tight, barking with delight! Back then one couldn't afford a kennel, so each dog had his own box that was kept clean, dry and warm. One of the most important things we did in the fall was to gather dry leaves and store them in the chicken house so the bedding in the boxes could be kept fresh and clean all winter.

Finally, the evening came when two lanterns were prepared and Daddy said, "Dress warm, get your boots and let's go hunt'n." I couldn't coon hunt on school nights, because it took two days for Mama to clean

the soot off my face from where I wrapped my lantern in my coat to keep from freezing.

The other men didn't seem to mind that Daddy let me go. When the mud and water got up to my knees, O'bell would reach down and throw me across his neck. I had a ride coon hunt'n style long before there were coon hunt'n mules! O'bell was a mountain of a black man who was like an older brother to Daddy. O'bell hunted with us as

Finally, he would say, "treed", then the pace was sped up. Again, O'bell would throw me across his neck and away we would go, hearts racing as we approached the tree and searched for two shiny eyes looking back at the flashlight. We had to walk by lantern light and save the flashlight to spot the old raccoon.

When the hunt was over, it always amazed me that Daddy could take us right back to where we started; he must have had some kind of

holding them and letting them lick his face, as he talked to them; it was obvious they knew he loved him and wanted to please him. When age or disease took the life of one of his dogs, it was a lesson of devotion to watch him as he gently wrapped the old black and tan in a burlap sack, with tears rolling down his wrinkled cheeks, and placed him in the grave he had dug.

But as dusk came on, hearts became lighter, the lanterns were pre-



Rachel takes careful aim at a rabbit with her trusty single barrel, 28-gauge, 1901 Harrington and Richardson shotgun.

long as he could hear the dogs and was able to get through the woods.

Coon hunt'n was serious with Daddy, who led the way. He had to stay in hearing of the dogs, so when he stopped and cupped his hand behind his ear, everybody had to be perfectly still and quiet as a mouse. For fear I would do something to cause him to lose a dog, I would stand on one foot rather than make a sound bringing the other one down.

mental radar. When I would ask him, he would say "a good dog always comes back to where you turned him loose." Once we got the dogs home, they were given a warm meal of cornbread and whatever else Mama had saved and prepared for them. Feeding and caring for the dogs was my job, because oftentimes Daddy would change boots and go straight on to the barn to milk.

The dogs were rarely sold; most lived their life out at home. I remember seeing Daddy rolling in the grass playing with the puppies and how much fun he seemed to have just

pared and the dogs were eager to go. The young dogs would now have to prove themselves! We backed into an old logging road on the edge of the swamp, opened the trunk, Pale and Shot leaped out and took off. We lit the lanterns and followed the warm glow down the logging road, glancing back to see the glowing eyes of a bobcat as mesmerized by the flickering flame of the lantern, as the old man and the girl were by the sound of ole Buck's pups treeing in the distance.

As time and age would have it and O'bell having already been

called home to be with The Lord, coon hunt'n was becoming more difficult for Daddy. After having a mild heart attack in the woods, he began to gradually give up the night hunt'n. But dogs were his pleasure, so he turned to rabbit hunt'n.

By now, the redheaded girl was a young woman, teaching school, but the love for the dogs and being with them and Daddy had not been "out-grown." Day hunt'n was so different, you could actually see where you were walking and see the dogs work as well as hear them. The one thing that night hunt'n teaches you is to know your dog by the sound of his voice and know how that changes as the chase proceeds. Day hunt'n was no different in that respect—you have to know your dog!

We started with a pair of small beagle/terrier mixed dogs. We wanted small dogs because it made sense that if a dog had to find a rabbit and chase it, he had to be able to go where the rabbit goes! Daddy sat on a stump and would let the dogs hunt an area of briars and honeysuckle. I was his "whip-in"; when one of the dogs was doing something he didn't like, he would send me with a switch to correct it and make it go with the pack. He would not tolerate a dog running "trash." One of the greatest problems rabbit hunters have are deer—there seems to be three deer to every rabbit. So for this reason, he kept a big brown goat in the pen with the dogs. The goat looked like and smelled similar to a deer. If my switching and the goat didn't stop the bad habit, he gave the dog away. He insisted that the dog had to know two things—its name and "no"; if not, you have no control. He always made the dogs hunt with him. He

kept them together around him and made them hunt where he wanted them to hunt—they hunted with him. He didn't follow them and hunt with them. He never stomped brush; the dogs jumped the rabbits. Dogs are not stupid, if you will jump the rabbit, they will let you!

Developing this control began the day the puppy was born. The puppy knew his gentle touch and the smell of his breath long before they could hear his voice or see him; they never feared him. He never used his hand

O'bell in their new hunt'n grounds; he was buried on Valentine's Day. Things change, time passes and suddenly you are left with memories, lessons learned, that make you the person you are when you have to begin to make your own decisions and move on.

Shortly after Valentine's Day, I met a young man who later became my husband; my dowry was a pack of rabbit dogs and a couple of shotguns. We bought an old, rundown farm in Caroline County, and the



After the end of a long hunt Rachel calls out to her dogs "let's go home." But before her husband Dick loads them into the truck each dog is praised and given a treat for their hard work.

to scold—his hand was how he greeted the dog as he would a friend.

Through selective breeding, we got some small females, but it was difficult to find small male dogs. We wanted the tri-color and confirmation of a registered dog but not the size. We wanted short ears, 10-inch legs and small heads and bodies. It took time, but finally we had a pack of 10-inch saddle back rabbit dogs that Daddy was as proud of as he had been his coon dogs.

We had about 10 good rabbit hunt'n years before Daddy was not able to hunt any longer; and after a series of strokes, he went on to join

first thing we did was build a kennel and move the dogs to their new home. By fall, the pack was ready and we could hardly wait for opening day. Now I was the handler and my husband became my "whip-in." He was not a rabbit hunter, although he had hunted some with his grandfather, but had hunted deer and birds—and he was a good shot!

Being well aware that I was a woman making my way in what was then a man's world, I was very careful. I knew my place in a crowd of men and knew that my actions



Rachel and her husband Dick proudly show off four generations of their very special rabbit hunting dogs.

and knowledge would either earn their respect or their ridicule. I found it best to keep my mouth shut and let my dogs talk for me. At that time, there were few women deer hunters and most women who hunted then did so on horseback following a pack of foxhounds. Women who hunted on foot were frowned upon and thought un-lady like.

One of the things that Daddy made clear was that a woman was first a lady. On my 16th Christmas, he gave me a new pair of hunt'n

them. "Breeding to the right traits is so important; you can't teach a dog how to jump a rabbit or run the track; these are inborn instincts. You will have dogs that accidentally jump rabbits but one that knows how and where to look is something else. The same goes with tracking. The dog that knows how to work a bother and then go back to where she last was able to move the track and work it out is priceless. I have several what I call "me-too" dogs. They do whatever the others do and



For the last 41 years Rachel and her husband Dick have kept meticulous records of their hunting adventures.

and bulldozed piles. Each jumping and running from about 8:30 a.m. until dusk. They will hunt as long as I am with them, talking to them and keeping them interested; after the third day in a row, we have to rest, not because the dogs need to but we do! Rarely do we hunt straight days anymore; normally, we hunt three to four days per week.

Because they go where the rabbit goes, we cannot use a collar, so each dog is tattooed with a special number and telephone number on the inside of the thigh. This tattoo is registered in a national registry. As stealing a tattooed dog is a crime, this registry provides a service that helps one locate a lost or stolen dog.

We go prepared to dig them out of ground hog holes if necessary, as oftentimes this is where the chase ends. We have had to use our tools on many occasions; but only once have we had to hire a backhoe. Luckily, we have never lost a dog in a hole. On some bad days, most of the rabbits are jumped out of bulldozed piles or holes making a slow day a better hunt. Most days the dogs do everything right; other days they couldn't run a hot biscuit; but that's hunt'n—if everything were perfect, you wouldn't have to hunt.

Every hunt is recorded in an album with pictures of the day's hunt and everything about the day (good or bad) is recorded...where we hunted, who hunted, weather conditions, how many rabbits jumped, how many rabbits taken, and all the other game seen during the day. A daily log helps us under-

pants and a bottle of Channel No. 5. He taught me that I could hunt with the men, as long as I conducted myself properly. Sure, I do some things that men think are silly—like wash my hunt'n pants more than once a season, and have my dogs sleep in a heated cottage built for them, and the grassy yard around the house is cleaned daily. But in my heart, I am no different—I want my pack to be the best rabbit dogs in the country!

Over the 50 years, a lot has changed, but the way I raise, train and handle the rabbit dogs is basically the same as I was taught. I raise my own puppies and have been able to keep the bloodline. As I have heard it said and believe to be true, "You can take some things out of a dog but you can't put much in

occasionally will flabbergast me by doing something spectacular! All this makes a pack a team—they work with and help each other, each contributing as best she is capable.

*"Two's company,
three is a crowd and
four ain't allowed."*

Sometimes when men see my little short, fat dogs that I call "punky-poodles," because when they are not hunt'n they are lap dogs, laughingly they say "and they run rabbits"? But once they have hunted with them, they change their minds a bit—they see hard-hunt'n, little dogs that can move rapidly through briars, brush,



stand a lot about hunt'n, especially smelling conditions. Those bad days are not always the fault of the dogs. Wind direction, condition of the ground, barometric pressure and pending weather changes all play a part in the day's hunt. One day we were hunt'n with some old watermen and all morning the dogs were just awful. One of the old men could see that I was upset with the dogs; looking at his watch, he said "Child, in about an hour, the tide will

23 years. Three is a safe number for rabbit hunt'n. A good hunt'n rule to follow—"Two's company, three is a crowd and four ain't allowed." We have hunted so long together and know the dogs so well that when the rabbit is jumped, we know how to move to an open spot and stand still. You have to move quickly, because you don't want to turn the rabbit. Turning the rabbit makes it hard on the dogs, as the rabbit has all kinds of tricks he uses to mess them up. Once

rabbit is taken, all the dogs come to the dead rabbit; when all have smelled the rabbit, then it is picked up and opened with each dog getting a taste—this ends the chase. After a brief praising and petting, we move on, talking softly to them and telling them to "find a bunny" until another chase is on. Words are not as important to the dog as the tone of your voice. If you yell at them all the time, they become deaf to those sounds; but if your voice changes



change, the wind will pull around to the west and things will get better." Sure enough, after lunch you would have thought we had a different pack of dogs!

It takes three things to have a "good day"—a safe place to hunt that has rabbits, good smelling, and good hunters. A good day is about 10 chases and getting about eight rabbits with the other two going in holes.

Frank Silverthorne, Dick and myself have hunted together for about

the chase starts back, you have to stand still whether you are in a good spot or not. A good spot is one that allows you to see in all directions of shooting range if possible.

Because I am with the dogs, I usually stay at the bed (where the rabbit is jumped) while the two men move off to my side by about 100 yards—then we listen to the chase. After a good run, we take the rabbit when we have an opportunity. The chase can last anywhere from 30 minutes to two hours or longer. When the

After the chase Rachel lets her dogs take a close up look and sniff at the rabbit that they worked so hard to catch. This is a great confidence builder for the dogs.

with the command, the dog learns to respond; this makes it easier on you and the dog, especially at dusk and you are ready to head in and you want your dogs to come on into the truck. Our dogs know that at the end of the hunt and I say "let's go home" that there is food and water waiting at the truck and their box is covered

with a camper shell, keeping it warm and dry.

Safe places to hunt are becoming harder to find, as developers buy up acreage for home and businesses. For this reason, we respect landowners who allow us to hunt. To find new places we ride back roads and when we see what looks like a good spot, we stop and ask the landowner, usually a farmer. My husband, who has sold lightning rods for thirty years, knocks on the

farmers who own large tracts, especially nurserymen or truck farmers, will ask us to come back if the rabbits are a nuisance. The landowner's name and address is added to our rabbit book and the next day a thank you note is sent. During the summer, I make pickles and jellies that are taken with us and given to the landowner. For many years, we were able to give homemade butter, but that task is one that has long since been given up and they have

lease that he would have to "reserve the right for one woman and her party to rabbit hunt." For these people, I am thankful.

The three of us are now in our golden years and it grieves me that we have had to make some changes. The little two-way radios have been a real blessing; we have become "hi-tech." Now my husband can sit on the tailgate, swinging his legs, eating cookies and drinking colas until I radio to him "bunny-up", then he hits the 'clock'! Hearing is so important to enjoying the hunt, something taken for granted until on one windy day you realize you are having a hard time locating the dogs on long chases. The radios have really helped because we can quietly let each other know what is happening. A few years ago I would have been with the pack... I wouldn't have had to listen for them, which reminds me of another difference. If a puppy ran a deer, I could run and catch her, and set her straight, usually that only took once or twice as my girls are so sensitive. This year I had to resort to a training collar, which broke my heart. I don't know whom it hurt worse when I hit that button... Fancy Mae or me; but it worked and now I can call her a rabbit dog. I mentioned earlier about carefully breeding good traits; well, my dogs can jump rabbits, but I needed to breed some tracking sense into them. I went to a field champion without asking questions, later to find out that the male dog was only a rabbit field champion in a trial pen. Even though I still keep a big, brown goat in the pen, it is an awful temptation when a deer rolls up in front of a puppy like jumping a rabbit.

Many times I have stood and watched a deer come out of the brush, hit the path, and run out of sight. Seconds later, the rabbit comes out and takes the same path; I hold



door. He knows how to approach the landowner in a polite, professional manner. We have permission cards that state "rabbit hunting only," as we shoot no other game. This card has our name, address and telephone number, which gives us some credibility. Once we have permission, we then feel responsible to the landowner. We do not leave litter, drive on muddy roads, bring more than one vehicle nor hunt the property more than once a season, unless by invitation. Sometimes

let the cow go dry. It's a kind-hearted person who will let three strangers with guns and fifteen dogs move about their property all day. During the year, we invite them to events that we are having, like our "open garden" so they will have a chance to get to know the dogs and us. Some of the people that we have met over the years have become our best friends. One older gentleman, who had to rent his land to a deer hunting club for the first time in order to pay the taxes, wrote in the



my breath and sigh with relief, as the whole pack swings back into the bushes where I saw the rabbit dart. That's when I can say they don't run a deer. But dogs are like children. When you want them to behave, that's when they will surely mess up!

I can see that the pack I have now is not the pack I had 10 years ago. I have resolved that I may never have that kind of pack again; not because I don't have the dogs with the potential, but because I am not able to stay with them on the chase, correcting them when necessary. A dog will form bad habits like back tracking that can be easily corrected if you are there to see what is going on and take proper action.

In the off-season is when this type of training usually takes place. For that reason, I keep my fly swatter with me. The fly swatter makes a good reminder and is kept hanging on the kennel gate; when I get the fly swatter, they know I mean business and pay close attention.

This pack is a young pack and still have a lot to learn. I consider a dog

broke at about eight years old, when she begins to think like a rabbit. Then she can give me about four or five good years! Maybe this pack and I will age gracefully together and know when it is time to set on the porch and enjoy the warmth of the sun and the memories.

Hunt'n and hunting are not the same; hunt'n is a way of life; something that you grow up with, where from an early age, you appreciate the animal hunted for its fur and for its food value; if you kill it, you or someone eats it! The dogs and hunt are part of the chain that provides for the family, as well as the pleasure of being outdoors and the fellowship of other hunters.

Hunting is something that is learned usually as the result of an acquaintance. And that is fine—not everyone is fortunate enough to have grown up in a home with a Daddy who thought way ahead of his time. When the hunter starts talking about "hunting", it has a different ring to your ear. You think all new clothes, toting the gun backwards, just like the catalog pictures,

and they won't have a clue about "hunt'n."

The desire to hunt and enjoy hunting comes from within; hunting should not be forced on anyone, be it son, wife or daughter. Opportunities and encouragement are oftentimes all it takes to stir the interest that will lead to the cultivation of skills that open up a whole new world. Whether it be seeing a sunrise from a duck blind, taking a trophy buck or watching a beagle puppy jump her first rabbit, at that moment, you are in another world—seeing nature at its best.

A little boy that we took rabbit hunting summed it up in his thank you note, "Hunting was fun but the dogs were the best part." Hunting without dogs is not hunt'n. So get yourself a couple of dogs and let hunt'n become a special part of your life. □

Rachel Nuttall Anderson is a retired Professor Emeritus of Randolph-Macon College, in Ashland Va. She spends her days taking dogs to Dr. Taylor, her family vet, entertaining garden guests at Palestine Farm in Caroline County, and hunting and writing about her adventures.



Left to right: Frank Silverthorne, a trusted friend and hunting buddy, Rachel and her husband Dick Anderson who is toting "Mr. Ed's" old double barrel shotgun, which was passed down to Rachel by her father, Ed Nuttall.

VIRGINIA WILDLIFE OUTDOOR CATALOG



Our two most recent additions to Virginia Wildlife collectables

Bear with Fish

Our bear has caught his fish and is not about to let it get away. This collectable bear is approximately 12 inches high.

Item # VW-518 \$9.95 each

Duck with Baby

This baby duck is hitching a ride on its mother. This colorful collectable duck and baby is available in limited quantities.

Item # VW-519 \$9.95 each



NEW for 2004



Limited Edition Collector's Plates

Our first in a series of *Virginia Wildlife* limited edition collector's plates. This collectable is titled "Winter Comfort" and is taken from an original artwork by Bob Henley. Each plate is individually serial numbered and has the year of issue identified on the back.

Price \$22.95 Item # VW-500

Limited Edition Steins

Our first in a series of *Virginia Wildlife* limited edition steins. This companion piece to our collector's plate shown above is also individually serial numbered and has the year of issue identified on the reverse side.

Price \$16.95 Item # VW-501

Our Virginia Wildlife Collection of Throws and Pillows



Yellow Lab Pups Tapestry Throw

Created from a photograph by Virginia photographer Dwight Dyke, these five Lab pups lay about in the warmth of their basket alongside tools of their trade. This tapestry throw, created exclusively for VDGIF, is triple jacquard woven of 100% cotton. Machine washable and measures approximately 52" x 69" — \$39.95 Item # VW-515

Matching Pillow — \$19.95 Item # VW-516



Fall Buck Throw

Triple jacquard woven of 100% cotton, 52" x 69," Machine Washable — \$39.95 # VW-511

Matching Pillow — \$19.95 Item # VW-512

Down From the North Throw

Triple jacquard woven of 100% cotton, 52" x 69," Machine Washable

\$39.95 Item # VW-509



Matching Pillow — \$19.95 Item # VW-510



Winter Songbirds Throw

Triple jacquard woven of 100% cotton, 52" x 69," Machine Washable — \$39.95 Item # VW-507

Matching Pillow — \$19.95 Item # VW-508

For the Art Lover or Collector

Framed 16" x 20" prints of our "Winter in Virginia" original paintings.



Virginia Wildlife Greeting Cards and Prints

Renowned wildlife artist Spike Knuth has captured the unique lives of Virginia's wildlife. A cardinal, grouse, wild turkey and white-tailed deer are featured in this first set of greeting cards. Each box contains 12 cards and envelopes: three cards per image for only — \$9.95 Item # VW-212

Also for the art lover are frammable, 11" X 14" prints of each of the "Winter in Virginia" original paintings. The set of four prints is available for — \$19.95. Item# VW-56

Each print is custom framed and matted. These attractive prints will brighten any room and are available for a limited time at — \$35.95 each. Item # VW-211 please indicate: Cardinal, Turkey, Deer or Grouse



NEW! – Virginia Wildlife Music CD

Virginia Wildlife is excited to offer a compelling and lively array of classic Celtic and Appalachian music that celebrates Virginia's wildlife and natural resources. This musical journey is composed and performed by Timothy Seaman, of Williamsburg, Va., along with guest appearances from other musical masters. (Total Time 66:32)

Item # VW-219 \$10.00 each

2004 Limited Edition Virginia Wildlife Collector's Knife

This year's knife has been custom made for us by Buck Knives. Every facet of this knife indicates that it will be a treasured collectable. From its distinctive handle with gold lettering and brass bolsters to the knife blade engraved with the Virginia Department of Game and Inland Fisheries logo, each knife is individually serial numbered and comes in a decorative, custom wood box. Limited quantities of 400.

Item # VW-403 \$85.00 each





Collector's Patches 2003

The first set in a series to be issued each year. Our 2003 edition has been custom designed exclusively for VDGIF. One patch displays a deer in a woodland setting, the other a black bear mother and cub. This first edition is sure to become a valued collectable.

\$9.95 set of two patches Item # VW-505



Collector's Patches 2004

The second issue in our collectors patch series. One patch displays a duck in flight against a sky blue background, the other a trout for the angler in all of us.

\$9.95 for a set of two patches Item #VW-506



Buckles

Our bass and duck belt buckle collection is crafted of solid pewter with *Virginia Wildlife* engraved at the bottom. Each buckle comes in a custom gift box with the VDGIF distinctive logo displayed.

\$9.95 each Item # VW-502 Bass VW-503 Duck

NEW for 2004

Our *Virginia Wildlife* collection of Pulsar Watches by Seiko

Your choice \$59.00 each or 2 for \$100.00



From the Ladies Pulsar collection. This attractive watch has a gold tone bracelet with gold tone hands and markers on a champagne dial. Water Resistant.

Item # W-302



From the Pulsar Nightfall line. TiCN Plating, gold tone crown, hands and markers and black dial. Water Resistant.

Item # VW-301



Mans Wrist Watch, stainless steel bracelet, luminous hands and markers blue sunburst dial. One way rotating elapsed timing bezel. Water Resistant.

Item # VW-300



Book Clock

This decorative book style clock is crafted of solid cherry wood, beautifully engraved with a vivid wildlife scene on the book side of the clock. The clock face is of old world décor, a collectors delight. Clock is 5 1/2" x 8 1/2" when opened.

\$29.95 Item # VW-303



Pocket Knife

This attractive and functional 3-inch folding knife, manufactured by Bear Cutlery, comes with *Virginia Wildlife* etched on the oak handle. Each knife is gift boxed.

\$24.95 Item # VW-400

Commemorative Collector's Coin

Each coin is engraved with the original artwork of a black bear and cub, provided by wildlife artist Spike Knuth, and is packaged in an attractive gift box. *Limited quantity available.*

\$9.95 Item # VW-504





Virginia Wildlife T-Shirts

T-Shirt with eagle, available in Black, Navy and Teal \$12.95 each
Item # VW-100



VW-103



VW-104

Each shirt is 100% cotton and embroidered with the Virginia Wildlife logo, and a largemouth bass or white-tailed deer. Please specify size, M, L, XL, XXL and color, Grey, Navy, Tan, Teal, or Black when ordering. — \$12.95 each
Largemouth Bass – Item # VW-103 White-tailed Deer – Item # VW-104



VW-109

VW-110

VW-111

NEW Denim Shirts

100% cotton, pre-washed, long sleeve denim shirts with embroidered logo, available in sizes Med, Large, X Large and XX Large. — \$19.95 each

Denim Shirt with Cardinal Item # VW-109

Denim Shirt with Eagle Item # VW-110

Denim Shirt with Trout Item # VW-111



VW-106

VW-107

VW-108

VW-105

NEW Virginia Wildlife Sweatshirts

These attractive shirts are a 50/50 cotton polyester blend, with an embroidered logo, and are available in sizes, Med, Large, X Large and XX Large. — \$17.95 each

Sweat shirt with Eagle comes in colors Black, Navy and Khaki – Item# VW-105

Sweat shirt with Trout comes in colors Grey, Navy and Khaki – Item # VW-106

Sweat shirt with Deer comes in colors Black, Grey and Khaki – Item # VW-107

Sweat shirt with Cardinal comes in colors Black, Navy and Rose – Item # VW-108

≠ VW-118



Virginia Wildlife Caps

Hats off to the new *Virginia Wildlife* caps that feature three unique designs. Each cap is 100% cotton, size adjustable and embroidered with the *Virginia Wildlife* magazine logo. — \$11.95 each



High profile - Deer - Item # VW-118
Low profile - Deer - Item # VW-117
High profile - Bass - Item # VW-116
Low profile - Bass - Item # VW-115

High profile – Camo With Black Letters – Item # VW-113
High profile – Blaze Orange – Item # VW-114
High profile – Camo With Tan Letters – Item # VW-112
High profile – Virginia Wildlife – Item # VW-120
Low profile – Virginia Wildlife – Item # VW-119



VW-121



VW-122



VW-123



VW-124

NEW *Virginia Wildlife* Caps

Our new *Virginia Wildlife* hats are available in 100% cotton or in denim and are size adjustable. These attractive hats have been embroidered with our *Virginia Wildlife* magazine logo and feature either an eagle or trout for the wildlife and fishing enthusiasts. Hats are available in high profile. Check out our new low profile denim hats. These hats look great with our new denim shirts. — \$11.95 each

Navy Hat with Trout Item # VW-121
Black Hat with Eagle Item # VW-122
Denim Hat with Eagle Item # VW-123
Denim Hat with Trout Item # VW-124

Item #	Name of Item	Qty.	Size	Color	Price	Total Price

Make checks payable to *Treasure of Virginia* and mail to: Virginia Wildlife Catalog
P.O. Box 11104, Richmond, VA 23230-1104
Credit card orders can call (804) 367-2569

Subtotal

Shipping and Handling

6.95

Payment Method

☐ check or money order ☐ VISA ☐ MasterCard

Total

[illegible]

Account Number

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Expiration

Signature _____

Please Print Name

Daytime Phone Number

Shipping Information

Name

Address

City

State

ZIP

Out in the Cold

by Carol A. Heiser
illustrations by Spike Knuth



When bitter, winter winds and icy, blustery storms settle in and take hold, we humans fall back on creature comforts to help us get through the bone-numbing onslaught. If the forecast calls for extremely low temperatures, we top our heads with cozy wool hats, protect our limbs with layers of polyester fleece, and ensconce our bodies with down-filled, high-tech jackets. Add a bit of sleet or snow, and we forge ahead with insulated, waterproof boots and a thick pair of warm, leather gloves. It's hard to imagine being out in the cold without the adaptive protection of clothing; yet, wild animals successfully survive winter without any artificial coverings at all. How do they do it?

Survival Strategies

Birds, mammals and other wildlife species have evolved numerous physical adaptations and behavioral strategies to survive cold, wet weather. Instead of parkas and storm coats, they rely on an insulating layer of fur or feathers. Instead of sipping hot cocoa

or thawing out with a bowl of steaming soup, they generate heat from specialized body fat. Feeding behaviors may change, too; for example, deer seek out twigs and bark in lieu of scarce green leaves. Some animals stock up on a supply of food in a winter cache: beavers and muskrats horde green stems and tree limbs underwater near their lodges; deer mice stash away seeds; and honeybees encase honey and pollen within waxy combs. Wildlife may create or use a communal winter roost or den to keep warm and avoid freezing, such as a group of bluebirds huddled together in a tree cavity, an aggregation of snakes with-



When most insect-eating birds fly south for the winter the Carolina chickadee will remain. They have adapted their eating habits by switching from insects during the warmer months to eating hidden dormant insects, larvae and foraging on vegetable matter during the winter.

in a rock outcropping, or a nest of northern flying squirrels. Some species become completely dormant and hibernate to sleep off the season. For still others, like monarch butterflies, warblers and some species of ducks and geese, the best plan is long-distance migration to find food elsewhere and escape the cold altogether.

First Line of Defense

Being able to regulate body temperature, known as *thermoregulation*, is paramount for winter survival. Most mammals—including deer, beavers, minks, raccoons and weasels, to name just a small sampling—depend on their fur as the first line of defense against the cold. In order to keep body heat at a constant level, mammals grow two types of hair in layers within their

fur, which traps warm air next to the skin. The outermost protective layer of fur is made up of guard hairs or coarse overhairs. This is the most visible part of the coat that helps shed water and keeps the skin dry. These hairs can also be erected to create more air spaces between them to hold warmth. Beneath this outer layer are the shorter, denser underhairs which provide the primary

source of insulation. Waterproofing is the finishing touch provided by oil glands associated with the hair follicles.

In a similar fashion, birds rely on their feathers to hold in body heat, and a greater percentage of their feathers is devoted to insulation than to actual flight. Like mammals which erect their fur, birds fluff up their feathers to increase the thickness of the air layer surrounding and insulating their skin.

Those of us who enjoy watching a birdfeeder over the winter occasionally marvel at how birds can keep their pencil-thin legs and feet warm. Not much insulation there! True, birds often tuck their feet and legs into their feathers for warmth. However, another mechanism may be at work. It has been shown that some birds have an ingenious counter-current heat exchange process within their vascular system. The arteries carrying warm blood to the feet are in close proximity to the veins carrying cool blood away from the feet. The cooler blood is therefore warmed by the passing warmer blood, and very little heat is lost in the process.

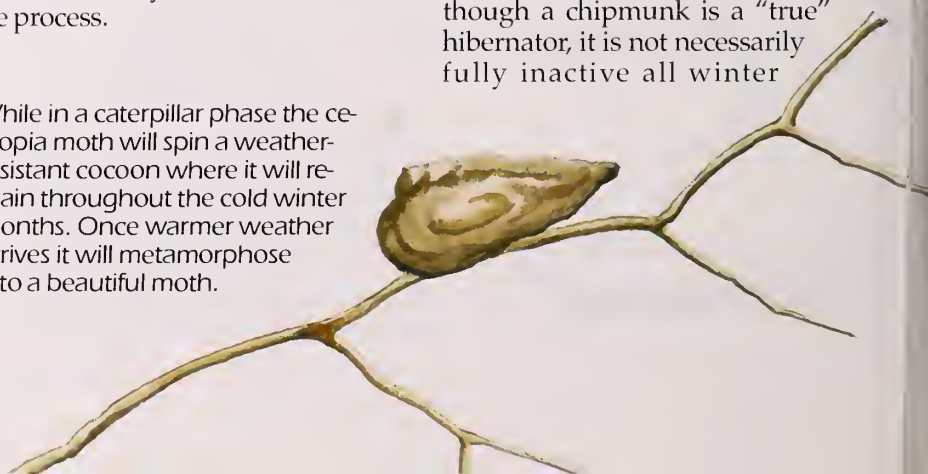
While in a caterpillar phase the cecropia moth will spin a weather-resistant cocoon where it will remain throughout the cold winter months. Once warmer weather arrives it will metamorphose into a beautiful moth.

Sleeping or Napping?

Several animal species either migrate or become dormant in winter because their usual energy source—that is, food—becomes scarcer. Insects, which provide an enormous amount of food to other animals during the spring and summer, are much less abundant or non-existent in winter; many plants have stopped growing and have lost their leaves; and nectar and pollen are no longer produced by shriveled flowers. For some mammals as well as birds and insects, this paucity of sustenance means that their bodies must undergo distinct physiological changes in order to conserve precious energy for survival. The more energy an animal can save by slowing down its metabolism and not burning calories, the longer the animal can last through the season until food becomes available again.

The diversity of ways that wildlife adapts to the energy deficit is amazing. How we describe these adaptations sometimes leads to a bit of confusion because terms like hibernation, torpor and dormancy are often used loosely or interchangeably.

We may recall having learned in grade school a common misconception that hibernation means an animal sleeps deeply and completely throughout the winter; but this is a terribly simplistic definition at best. A “true” hibernator is an animal whose body temperature is capable of dropping to within one degree of the environmental conditions around it. Examples of true hibernators include chipmunks, groundhogs and box turtles. However, even though a chipmunk is a “true” hibernator, it is not necessarily fully inactive all winter



long—it may wake up and actually come above ground. Whether or not a chipmunk remains fully active or fully torpid during the winter appears to be related to the availability of stored food.

In comparison, animals like skunks, raccoons and opossums do not undergo true hibernation because they sleep in a state of *torpor* or inactivity with a relatively *higher* body temperature. These torpor hibernators may occasionally wake up during the winter to move around, too, and like true hibernators they do not feed. Bats are also torpid throughout most of the winter but may be aroused enough by an unusually warm spell of weather to become active for a brief period. In other words, “hibernation” is a general term more accurately defined as a seasonal period of torpor that is associated with adaptive, physiologi-

cal changes which may or may not include an extreme lowering of body temperature.

Brown Fat

Contrary to popular belief, bears are not considered true hibernators, either. Bears gorge themselves on acorns in the fall and accumulate a layer of “brown” fat which can be up to five inches under their skin as an energy reserve. Unlike common body fat which is usually white, brown fat contains a much higher number of powerhouse cells (mitochondria) that generate a large amount of heat when the fat is broken down. Over the course of winter while the fat is slowly metabolized and heat energy is released, a bear does not eat, drink, urinate or defecate. Paradoxically, a denning bear’s blood does not accumulate an excess of body waste like urea or nitrogen because the urea is converted to creatine, a non-toxic chemical, and the

nitrogen is recycled back into protein—a very efficient system, indeed.

Supercooled Pause

Insects may overwinter as an egg, larva, pupa or adult in an arrested state of development called *diapause*, a form of hibernation response. According to Bernd Heinrich, “All insects are in arrested development when they hibernate...but they are not strictly in diapause unless they do not respond with resumed development as soon as they experience warming” (p.11, *Winter World*).

Certain flies, ants, beetle larvae, bumblebees and others can survive the winter months in diapause, tucked away in bark crevices, under leaf litter, or under the ground. They’re able to do this by way of a biochemical process called *supercooling*, in which an antifreeze substance in their bodies called glycerol causes

After feeding heavily during the summer and fall months black bears will hibernate during the winter. While hibernating a black bear’s body temperature is greatly reduced and its heartbeat decreases by half its normal rate.



a lowering of the freezing point of water. As long as the insect stays dry and does not come into contact with ice—which would provide a place for ice crystals to form and freeze the body solid—it is able to maintain a supercooled state of torpor, unfrozen. Hence we find that some species like cluster flies and Asian ladybugs enter our houses in fall and then “come back to life” in the middle of winter when the warm, indoor conditions mimic the return of spring.

by freezing. As much as 50% of their body water may freeze; the heart stops, circulation ceases, and breathing is non-existent.

This phenomenon is all the more astounding because when water freezes it produces sharp crystals which can damage or destroy the body’s cells; one would therefore assume that freezing could not

freeze, provides a vital energy reserve, and replaces the need for oxygen.

Snow Blankets

Finally, the environment itself may have properties that facilitate



By summer's end the long-tailed weasel will shed its brown coat and by early fall replace it with a lighter, almost white coat. This allows it to blend in during the snowy winter months. It also will help it to avoid being seen by predators.

Popsicle Frogs

Some species of turtles, frogs and toads may bury themselves under the mud in a pond or under the ground in other habitats, where they are inactive or dormant at a low body temperature. Others may be completely frozen above the ground. The wood frog, spring peeper, chorus frog and gray tree frog are examples of amphibians that occur in Virginia and hibernate

be a good survival strategy. However, when a frog is exposed to extremely cold temperatures and ice crystals begin to form in its skin, its body reacts with adrenaline, an effect that is sometimes called the “fight or flight” response in other circumstances. The adrenaline stimulates a huge release of glucose or sugar from the liver, and the glucose becomes packed in the frog’s cells. A high glucose concentration within the cells causes water to leave the cells rather than freeze and destroy the cells. The glucose acts as an an-

animal survival: take the case of a beautiful mantle of snow. When snow falls and covers the ground, the fluffy layer gently sweeps over plants and other objects, forming a soft drape that acts like a blanket. The space between the ground and the snow is well-insulated and maintains a stable temperature, due to the phenomenon of how ice and water interact.

Even in winter, heat rises from the earth below and is trapped beneath the snow blanket. As ice crystals at

the base of the snow melt from the earth's heat, the water migrates upward through the snow's air spaces as vapor. This water vapor recondenses and freezes in the colder, upper layers of snow, where the ice crystals become more closely packed together and provide additional insulation. Meanwhile, as the snow at the bottom continues to melt, the chemical process of water being converted to ice paradoxically releases heat. In this way, temperatures on the ground are maintained at a constant level within one to two degrees of the freezing point of water. Hence, the air space between the snow and the ground is much warmer than the air above the snow, where the wind is more likely to be howling.

Many small mammals like mice, shrews and voles can easily thrive within this "subnivean" (between the snow and the ground) domain, where they scurry about digging tunnels, foraging for plant roots and seeds. The tiny air spaces trapped within and beneath the snow also supply much needed oxygen. A fresh layer of dry snow can be as much as 97 percent air, which explains how predators like foxes, weasels, bobcats and coyotes can detect the scent of rodents below the surface and accurately pounce on their unwitting prey.

Learning More...

Books

Winter World: the Ingenuity of Animal Survival, by Bernd Heinrich; c. 2003, HarperCollins Publishers, Inc.; 357 pp. A very nice summary of the survival strategies of mammals, amphibians, birds, butterflies and other insects, written in a conversational, easy-to-follow style; contains an excellent bibliography

During the winter some animals, like the white-tailed deer, must remain active and feed daily to survive. They also grow thicker fur that helps them stay warm during the winter.

for enthusiasts who enjoy reading in-depth journal articles.

Stokes Guide to Nature in Winter, by Don and Lillian Stokes; c. 1979 Little, Brown and Company Publishers. One of the first field guides about winter and now a classic; includes general information about birds, insects, trees, and animal tracks.

Life in the Cold: an Introduction to Winter Ecology, 3rd Edition, by Peter J. Marchand and Libby Walker; c. 1996 University Press of New England, Hanover, New Hampshire. The premier technical guide on the subject used in college courses, with a thorough overview of the biology of animal and plant adaptations and the interactions between them.

Winter: an Ecological Handbook, 1st Edition, by James C. Halfpenny and Roy Douglas Ozanne; c. 1989, Johnson Publishing Co., Boulder CO 80301. Not as technical but nev-

ertheless comprehensive; covers the effects of winter on plant and animal responses.

Web Site

Project WILD: Below Zero

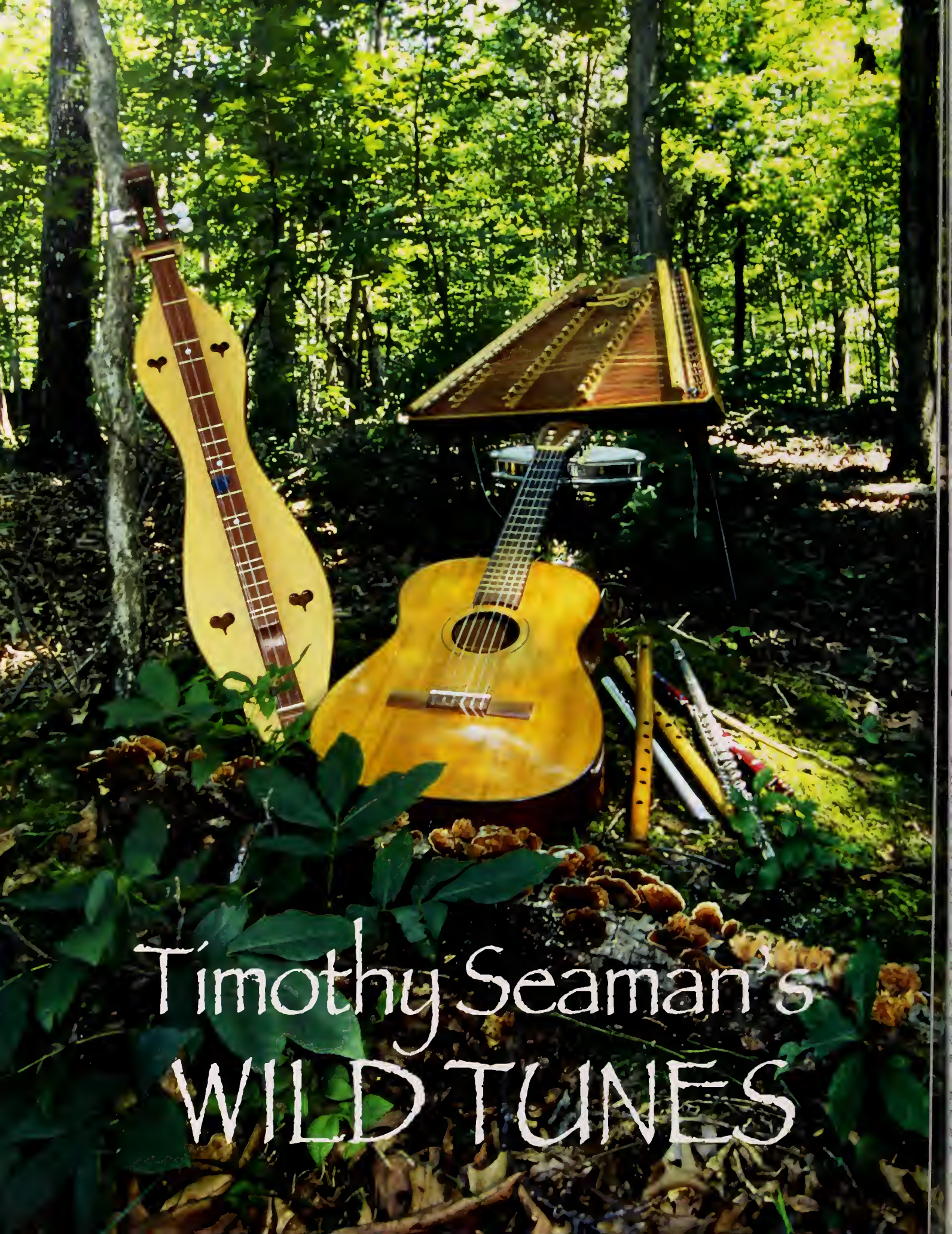
http://www.wildeducation.org/programs/below_zero/belowzero.asp

An education program and curriculum of the Canadian Wildlife Federation, the site provides teachers with eight sample activities whose topics range from snow to polar bears. □

Carol A. Heiser is a Wildlife Habitat Education Coordinator with the Virginia Department of Game and Inland Fisheries.

Virginia
Naturally





Timothy Seaman's
WILD TUNES



Take a unique musical journey and celebrate Virginia's Wildlife in a compelling collection of Celtic and Appalachian melodies.

by Emily M. Grey
photos by Dwight Dyke

Timothy Seaman is Virginia's definitive wildlife musician. This acoustic soloist masterfully blends dulcimers, drums and a variety of other instruments such as turkey yelpers, whistles, and Native American rattles to create compelling sounds of the Virginia wilds. Talented banjo player, Dwight Diller and other musicians often join in to complement Tim's unique rhythmic flow.

Born in West Virginia, Seaman learned to appreciate science, nature and the outdoors from his father, the former President of the American Fisheries Society. Tim's mother played piano and taught her preschooler son to love classical, swing and a diversity of other harmonies.

This William and Mary English graduate taught school for 19 years and was also a Philmont Ranger backpacking instructor. Since 1994, music has been Tim's major career.

His 200 concerts per year include the Augusta Heritage Festival, international venues, and radio guest programs. He has performed before Virginia statesmen, U.S. Congressmen, and Lady Margaret Thatcher.

So far, Tim has recorded 12 albums and sold approximately 50,000 copies. His newest CD entitled *Virginia Wildlife* is one of the most soulful and sensuous selections this writer has ever heard. Celtic and Appalachian music features Virginia wildlife themes.

Familiar classics like *Listen to the Mockingbird* and *Cockles and Mussels* balance new tunes like *The Osprey Returns* to *Bobcat in the Mountain Laurel*. In collaboration with the Virginia Department of Game and Inland Fisheries, this diverse masterpiece is a celebration of the Virginia Birding and Wildlife Trail and its indigenous flora and fauna.

"I want depth in my music," said Tim. "I do not want it to be just soothing and entertaining. Music is about communication."

Many of Tim's selections reflect a rich, upscale flavor and sometimes an impressionistic style. He enjoys changing keys, cords and instruments to vary the emotional content

of his songs. Amongst his other colorful albums are *Common Wealth for Virginia State Parks*, *Here On This Ridge* depicting Shenandoah National Park, and *Celebration of Centuries*, which focuses on the historic triangle of Williamsburg, Jamestown, and Yorktown.

Tim's CD, *Virginia Wildlife* can be ordered from the *Virginia Wildlife* catalog advertised in this issue or online at www.dgif.virginia.gov. This rare and remarkable collection of folk music will make a cherished holiday gift. □

Emily Grey is a naturalist, outdoor writer, photojournalist and attorney from Virginia's Eastern Shore.

To inquire about his music or purchase other CDs, contact Tim Seaman at:

www.timothyseaman.com

E-mail: tseaman@visi.net

127 Winter East

Williamsburg, VA 23188

Timothy Seaman's love for the outdoors, along with his musical talents, has helped him create a truly harmonious collection of nature's musical melodies that will leave you wanting more.





Journal

2004 Outdoor Calendar of Events

Dec 4, 2004: *Youth Squirrel Hunting Workshop*, White Oak Mt WMA. For information contact the VDGIF Forest Office at 434-525-7522.

Dec 20, 2004: *Generation Deer Hunt*, Occoquan Bay National Wildlife Refuge, deer hunt for youth ages 11-17. Contact Jimmy Mootz at 804-367-0656 or e-mail jimmy.mootz@dgif.virginia.gov. □



A Lifetime of Memories

This is not just any fish—it is 3-year-old Tyler Davis's first, ever fish. Thanks to Tyler's dad, Scott, this will be the start of a lifelong passion that will help to create cherished memories for years to come. After only one week of learning how to cast and retrieve a plastic worm, Tyler landed and released his whale of a largemouth bass back to the pond that he caught it in. Like many youngsters who pick up a fishing pole for the first time Scott said that his son is forever "hooked" on fishing.

With the holiday season just around the corner what better gift could one give than that of a lifetime fishing license. Not only is it a way to give a

thoughtful gift, but it will be a gift that will open the door to a lifetime of enjoyment in the great outdoors of Virginia, and leave an endowment for future generations of Virginia's wildlife enthusiasts.

If you would like more information on how to purchase a Virginia Lifetime Fishing or Hunting License call (804)367-1000 or go online at http://www.dgif.state.va.us/forms/lifetime_licenses/index.html and download an application. □

Book Review by Jennifer Worrell

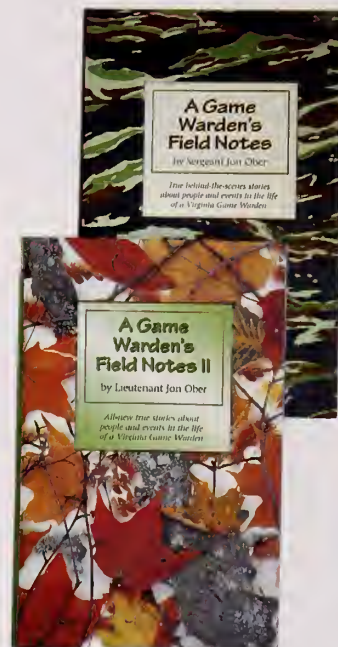
A Game Warden's Field Notes I and A Game Warden's Field Notes II

by Lieutenant Jon Ober

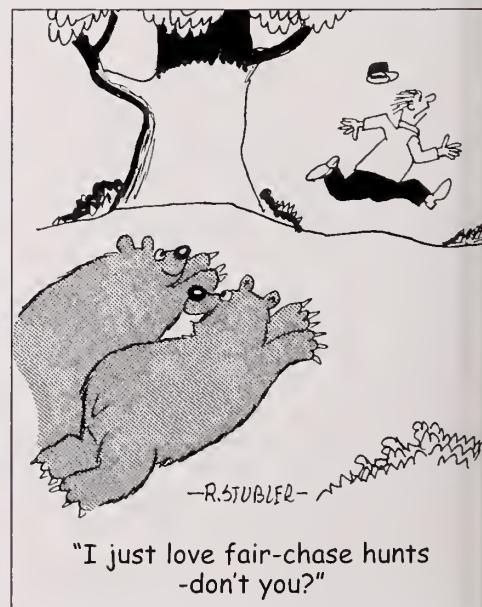
One book \$15.78 (includes S&H) or two books \$28.82 (includes S&H)

Virginia Game Wardens amass noteworthy experiences on a daily basis, and too few write down their adventures. Fortunately, Lieutenant Jon Ober has recorded the stories he has heard from other officers and combined them with his own in *A Game Warden's Field Notes I* and *A Game Warden's Field Notes II*. These volumes contain lively renditions of tales both hair-raising and hysterical. Artwork by Ober and his twin sons Charlie and Will bring the anecdotes to life and convey the wardens' obvious love for the resources they protect. Ober comments in his prologue to *A Game Warden's Field Notes II*, "I am repeatedly surprised at the situations, events, and people that Wardens encounter. What an absolutely unique job!" He adds in the book's epilogue, "Being a Game Warden in Virginia is a very special occupation, one that is rooted in our natural resources and our people."

Ober covers all bases in his books from the intriguing methods certain folks in lower Gloucester use to skirt around hunting regulations to a 17-hour

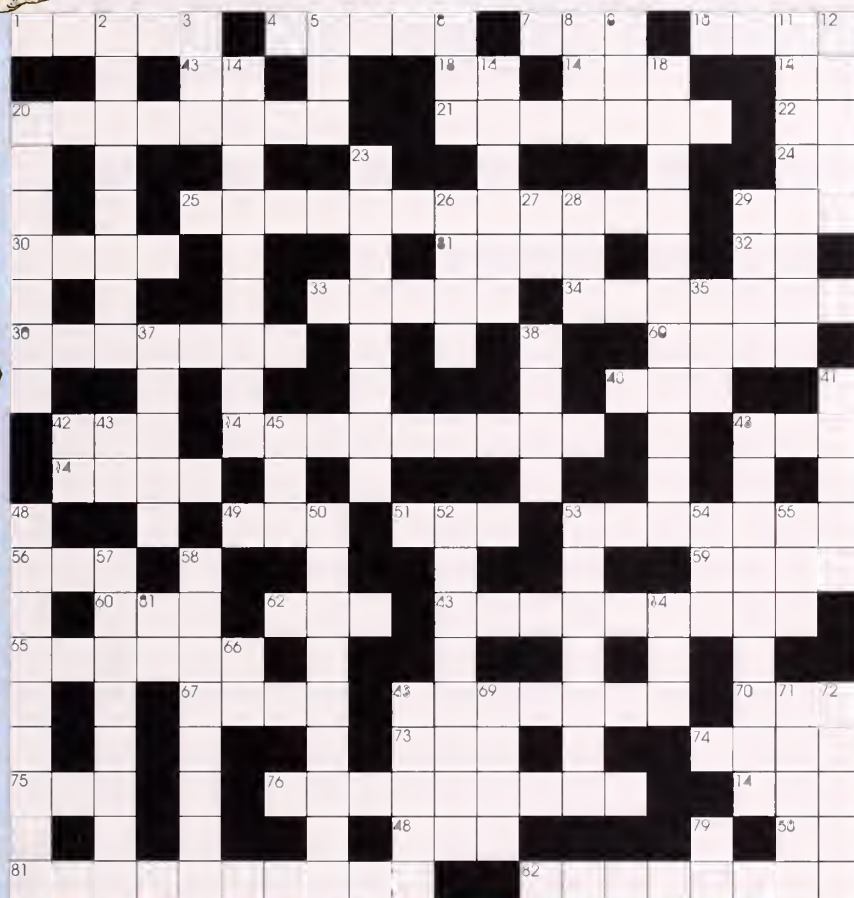


bear chase that led one poor warden into a giant hornets' nest and later into the local emergency room. To order your copies send a check payable to Jon Ober to P.O. Box 1184, Mathews, VA 23109. □





BYRD NEST



CROSSWORD

ACROSS

1. Red-breasted, Thrush family
4. Humpback or Sperm; ocean mammal
7. Direction toward stern of a boat
10. Giant silkworm; moth with eyespots on green body and wings
13. Type of electricity (abbr.)
15. Limited (abbrev.)
17. Less than average flow of water
19. America (abbrev)
20. Buttercup-like with bright yellow heart-shaped leaves; succulent; Marsh _____
21. Grasshopper order
22. Noise clap with pouring rain (abbr.)
24. Anyone, male
25. Common, Wood Warbler family
29. Brown, Eastern Red mammal
30. _____ and legs
31. Perceive by ear
32. First section of the Bible (abbr.)
33. Large thicket-forming shrub with 3" elliptical, double-toothed leaves
34. Coarse, broad-leaved, weed bearing, prickly heads of burs
36. White, Channel fish
39. Rude person; barbarian

40. Fragment of food left at meal
42. A tavern
44. Lobster, oyster, and mollusks
46. Major armed conflict
47. Blacknose, carp and minnow family
49. Long eared, sure-footed mammal
51. Red, Common, Gray, of dog family
53. Small, bright-blue male, passerine bird; Grosbeak family
56. Squid liquid defense
59. Greek god of war
60. Roman numeral 3
62. Black Carpenter, Cow killer insect
63. Small, sour wild fruit; Rose family tree
65. Common, heavy mineral, lead sulfide.
67. Laughing, herring shore bird
68. Large game fish; Perch family
70. Vehicle fuel
73. Metal bearing mineral or rock
74. Pumpkinseed, trout or walleye
75. Surface measure equal to 119.6 sq. yards; 1st person singular of be
76. Large marine food fish with elongated upper jaw
77. College grade average (abbr)
78. U. S. time zone (abbr.)

80. Serious hunting accident can land you here (abbr.)
81. Night crawlers
82. Terrestrial squirrel

DOWN

2. Small citrus tree; mint family
3. Small riding horse or pony
5. Coal scuttle
6. Largest living deer
8. Winged insect used in fishing
9. Bushy mass, especially ivy
11. Red- or White-breasted bird
12. A useful thing or quality
14. Composite plant of the aster family
16. Blue, dragonfly order
18. Small, creeping evergreen with bell-shaped flowers, and red berries
20. Large reddish-brown butterfly
23. Southern pine tree
26. Objective case of they
27. High ranking Coast Guard official (abbr)
28. Sphere, globe or eyeball
29. Ankle to knee outer foot wear
35. Period
37. Small passerine bird; House or Purple _____
38. Smallmouth, largemouth fish family
41. Sideways cross current pulls on fishing line
42. Identification (abbr.)
43. U. S. and Canada continent (abbr.)
45. Possessive form of he
46. Rapid swirling, common aquatic beetle
48. Constrictor with black/ white chain-link patterns
50. Showy, yellow-rayed flowers; edible oil and seeds
52. Fruit tree groves
53. Things that bob
54. To draw off liquid from a maple tree
55. Maiden name (French)
57. American plover with two black bands about the breast
58. Large, marine food fish of Drum family; Southern _____
61. That is (Latin, abbr.)
64. Joe _____ weed
66. Gold (chemical symbol)
68. Long, slender, soft-bodied, legless invertebrates
69. Port side of vessel
71. Tree of Poplar family with trembling leaves in slightest breeze
72. Elongated marine fish.
79. Sunup time of day (abbr.)

(Answers in February 2005, *Virginia Wildlife* magazine.)

Marika Byrd is a freelance writer, crossword aficionado, and member of the Virginia Outdoor Writers Association, Inc.

RECIPES

by Joan Cone

A Hearty Venison Chuck Wagon Soup Meal

While butchering a deer, keep your thicker scraps for stew meat and others for grinding. Deer forequarters are best suited for stews, soups and ground meat.

This thick soup is ideal as a winter main course. I prepared it in a cast iron soup kettle or Dutch oven, as it simmers on very low heat.

Menu

Venison Chuck Wagon Soup

Quick Beer Bread

Orange And Broccoli Salad

Cranberry Cherry Pie

Venison Chuck Wagon Soup

- 3 to 4 tablespoons flour
- 1/2 tablespoon paprika
- 1 teaspoon plus 1/2 tablespoon chili powder, divided
- Salt to taste
- 1/4 teaspoon garlic powder
- 1 1/2 pounds venison stew meat, cut into 1-inch pieces
- 2 tablespoons vegetable oil
- 1 medium onion, chopped
- 1 can (15 1/2 ounces) stewed tomatoes, undrained
- 3/4 cup condensed beef broth, undiluted
- 1 bay leaf
- Cayenne pepper to taste
- 4 medium red potatoes, cubed
- 3 medium carrots, sliced
- 1 can (8 3/4 ounces) whole kernel corn, drained

In a large resealable plastic bag, combine the flour, paprika, 1 teaspoon chili powder, salt and garlic powder. Add venison, a few pieces at a time, and shake to coat. In a large soup kettle, brown venison in oil in batches. Stir in the onion, tomatoes, broth, bay leaf, cayenne and remaining chili powder. Bring to boil. Reduce heat; cover and simmer for 30 minutes, stirring occasionally. Add potatoes and carrots. Cover and simmer 35 to 40 minutes longer or until meat and vegetables are tender. Add corn and heat through. Discard the bay leaf before serving. Makes 5 servings.

Quick Beer Bread

While this bread is easy to make, it's delicious, especially hot.

- 3 cups whole wheat flour
- 1 teaspoon baking powder
- 1/2 teaspoon baking soda

- 2 tablespoons honey
- 12 ounces beer

Place dry ingredients in a bowl and add the honey. Pour in beer, stirring only until the flour is moistened. Pour into a greased loaf pan and bake in a preheated 300° F. oven for 55 minutes. As soon as it is removed from the oven, rub the top and sides with butter. Serve hot.

Orange and Broccoli Salad

- 1/3 cup orange juice
- 3 tablespoons vegetable oil
- 2 teaspoons Dijon mustard
- 1/2 teaspoon dried dill weed
- 1/8 teaspoon onion salt
- 1 pound broccoli, separated into flowerets (about 4 cups), cooked, drained and chilled
- 2 oranges, peeled, cut in quarter-cartwheel slices
- 1/2 cup red sweet bell pepper, cut in 1/2-inch squares, optional

To make dressing, in jar with lid, combine orange juice, oil, mustard, dill and onion salt; shake well. In large bowl, combine chilled broccoli, orange slices and red pepper. Pour dressing over salad mixture; mix lightly. Chill 30 minutes, stirring occasionally. Makes 6 servings.

Cranberry-Cherry Pie

- 1 package (15 ounces) refrigerated pie crust, softened as directed on package
- 2 cups fresh or frozen cranberries
- 3/4 cup sugar
- 2 tablespoons cornstarch
- 1 can (21 ounces) cherry pie filling or topping
- 1 tablespoon sugar

Preheat oven to 425° F. Make pie crusts as directed on package for two-crust pie using a 9-inch pie pan. Stir together cranberries, 3/4 cup sugar, the cornstarch and pie filling in large bowl. Pour into prepared crust. Top with second crust; seal edges and flute. Cut slits or shapes in top of crust. Sprinkle with 1 tablespoon sugar. Bake 35 to 45 minutes or until crust is golden brown and filling is bubbly. Cover edge of crust with strips of foil after 15 to 20 minutes of baking to prevent excessive browning. Makes 8 servings. □



On The Water

by Jim Crosby



Life Jackets and Seat Belts

"I don't wear them because they are confining, uncomfortable and they chafe me over a period of time." What are we talking about here? This statement could apply to vehicle safety belts or vessel life jackets equally. It seems to me, we have the same problems convincing people to wear either.

After many years of public educational efforts, the biggest payoff for vehicle safety belt use has come from the establishment of a legal requirement. Will this be necessary to get people to wear life jackets? It certainly appears so because we have been preaching, publicizing and campaigning for life jacket wear for many years now and the boating public hasn't caught on yet. The only place we see people wearing life jackets consistently is where law mandates them. Of course, in Virginia, you are required to wear a life jacket when riding on a Personal Water Craft (PWC) or being towed by one.

Very recently, The Boat U.S. Foundation set out to discover why hunters and anglers don't wear their life jackets and their focus group studies revealed that the number one reason was "lack of comfort." I think the recreational boating industry has been aware of that fact for many years now because they have responded by providing us with a whole array of new designs that are cooler, offer greater comfort and ease of movement.

Far too many boaters only remember the bulky, box like PFD's that were hot, uncomfortable and re-

stricted your movement to the point that you couldn't shoot or cast, not to mention just sitting while wearing one. I think this has come about due to years of exposure to those PFD's placed on a boat by dealers as an incentive to sweeten the deal. They are often referred to as part of the "Coast Guard package" which represents the very minimum safety items required to meet federal boating safety requirements. You know the ones I am referring to. They look like an international orange horse collar with one or two tie strings and a strap. You can pick them up in any department store for ten bucks or less. Too many boaters buy a whole bag of them to place on their vessels just to make sure they have one for each possible passenger without any ex-

pectation of anyone ever actually wearing one.

Well, I am pleased and excited to tell you that you now have a whole new approach to the problem with many choices designed for your particular use and the type of boating you do. That's what makes the selection of your PFD a very personal thing. You should never boat with the expectation that you will wear whatever PFD the boat has onboard. No matter where I go to boat, I always carry my own PFD because it has all of my own personal survival gear attached, its mesh shoulders are cool and the wide collar never chafes my neck. It doesn't have a bulky mass at the neck or in the back to make it uncomfortable to sit. It is sized and adjusted to fit without fumbling around each time I put it on.

I am an excellent swimmer and a very active boater with all kinds of reasonable excuses for not wearing a PFD. I don't invoke any of them and I strongly urge you to adopt the same attitude by wearing your own personal PFD. As to whether or not it will remain voluntary or become mandated by law is a question being debated heavily in almost every state and by federal regulators. Have you ever seen a Game Warden on a vessel without a life jacket? And they are the professionals! □

Author's Note: I always enjoy feedback in the form of comments and suggestions. Please e-mail me at: jimcrosby@aol.com.



©Dwight Dyke



Naturally Wild

story and illustration
by Spike Knuth

Evening Grosbeak *Coccothraustes vespertinus*

In the bird world, there are certain species that cause great excitement the first time they are seen. They stand out due to size, bright colors, shape, or habits. One such bird is the evening grosbeak. It stands out because of its distinctive deep yellows, rich browns, black wings with a big white wing patch, chunky body, short black tail and large, pale bill. It has a black cap with a broad yellow eye stripe. It flies with a

fluttery, undulating motion and measures 7 to 8 ½ inches. The females are grayish with a tinge of yellow, black wings and tail with white patches and spots.

It got its name because it was originally believed that it came out to sing only in the evening. It was once a bird of the west, mainly northwestern United States and western Canada. Prior to 1889-1890, it was never recorded east of Ontario and Ohio. About that time, grosbeaks began somewhat mysterious "invasions" farther east and south of its former range, into New England. It was first recorded in Virginia. In March 1940, and by 1958-1961, they were being seen as far south as northern Georgia and Alabama, and as far northeast as Labrador and Newfoundland.

These invasions, called "irruptions," were erratic as the birds wandered into different areas each year. Sometimes they'd visit the same area a few years in a row then never show up again. The heaviest period of


these irruptions occurred from the late-1960s through the early 1980s. Evening

grosbeaks typically gather in large flocks in fall and winter and, while some will remain on their boreal forest breeding grounds, others

may begin to wander eastward and southward in erratic migration-like movements. The evening grosbeaks were often joined by other northern finches.

Actually they weren't true migrations, but the reason for the movements is still unclear. At first it was believed that they were caused by periodic failures in their normal food supply. Others speculated that the eastward spread of the box elder (ash-leaved maple), the seeds of which are a favored food, may have encouraged them eastward. Yet another theory is that the outbreaks of the spruce budworm provided a ready supply of moth larvae, pupae, and eggs that the grosbeaks took advantage of.

Since the 1980s, these irruptions and numbers of grosbeaks in eastern United States have declined according to surveys by the Audubon Society and Cornell Laboratory of Ornithology. The reason is not known. It could be they have a plentiful food source in the north and west, plus the winters have been relatively mild in recent decades.

Some of its other natural foods are the seeds of elder, maple, ash, sumac, pine, fir, balsam, locust, apples, cherry and a host of wild berries. If in the future, you get a flock of evening grosbeaks coming to your feeder, be prepared. They are voracious feeders and will devour huge quantities of sunflower seeds in a short time. They prefer platform-type feeders. Water will also attract them and they are attracted to salt as well. These highly gregarious and noisy birds will provide a flurry of activity as they constantly move and flit about; constantly uttering their "peer" calls, or double note chirping "clee-ip," like a loud house sparrow. 



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